

FIG. 1

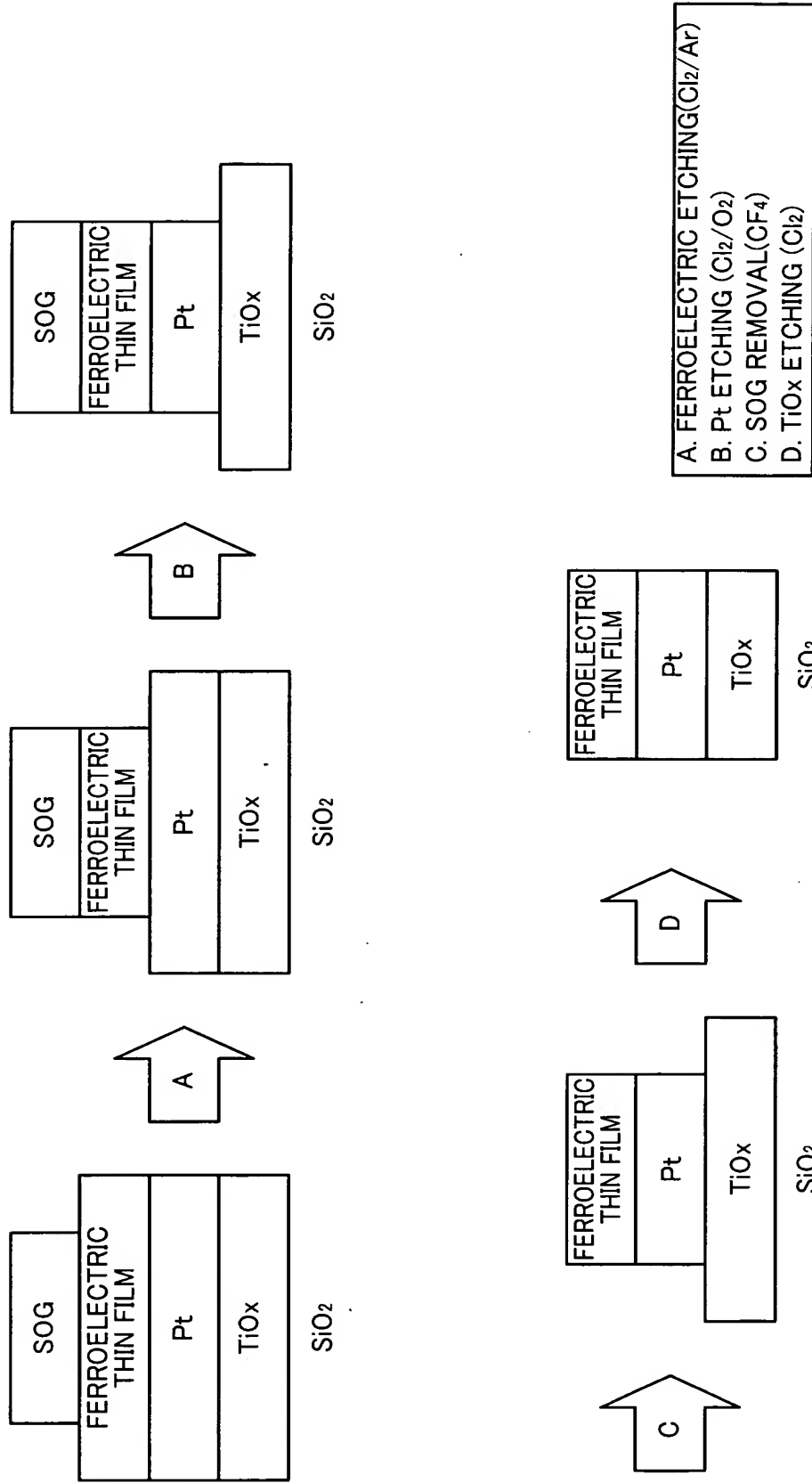


FIG. 2

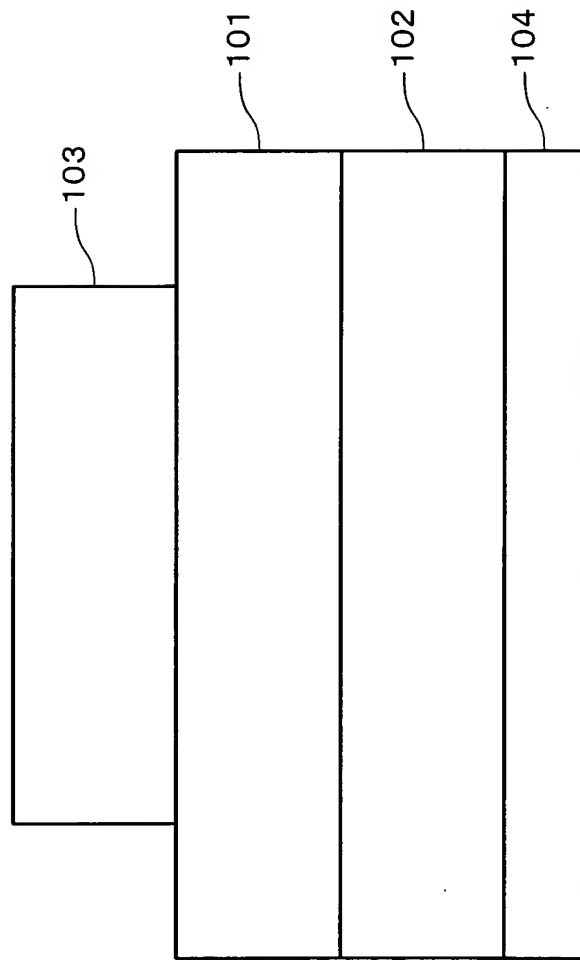


FIG. 3

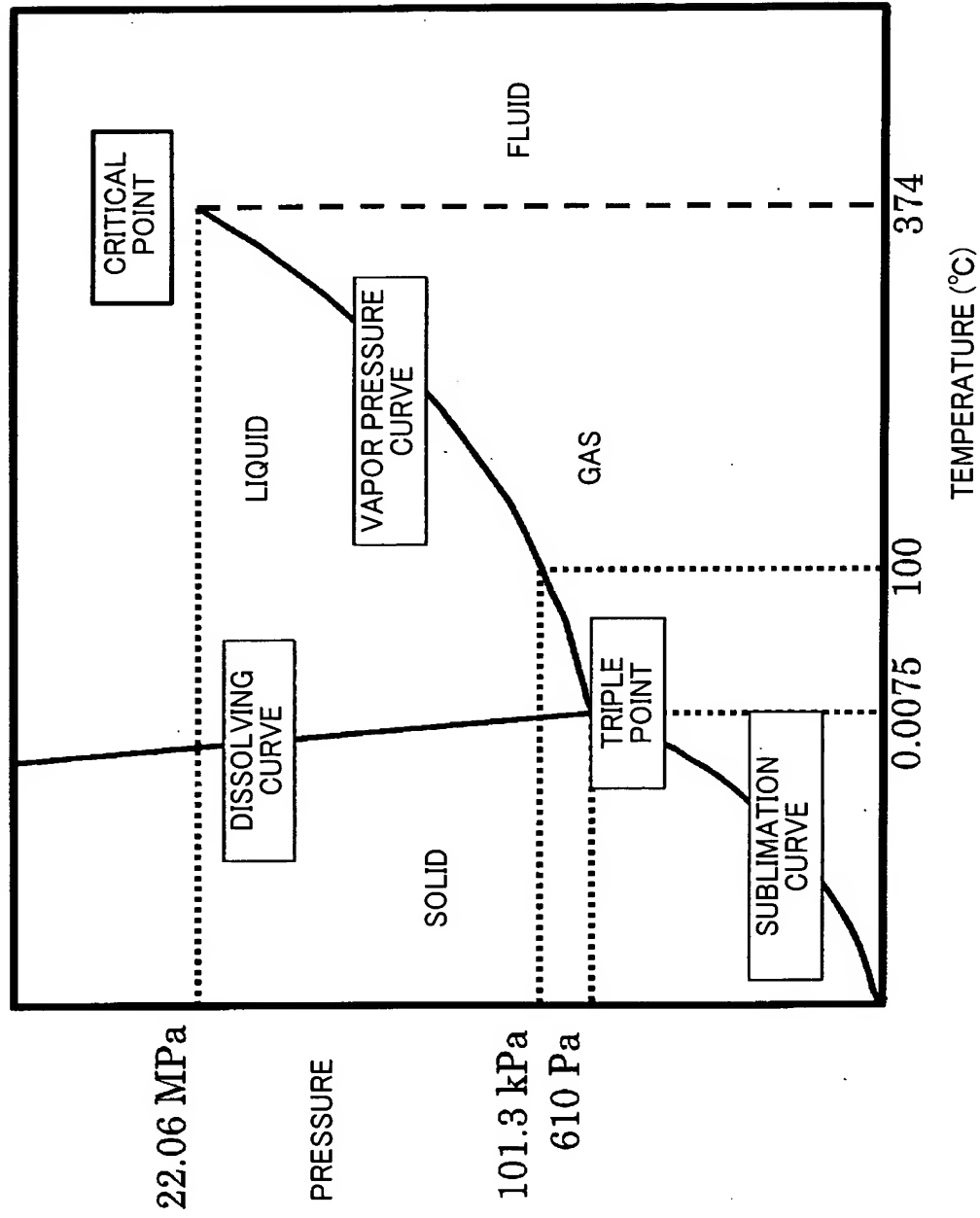


FIG. 4

MOLECULE	CRITICAL TEMPERATURE °C	CRITICAL PRESSURE atm	CRITICAL DENSITY g/cm <sup>3</sup>
H <sub>2</sub>	-239.9	12.8	0.032
N <sub>2</sub>	-147.0	33.5	0.314
Xe	16.6	57.7	1.110
CO <sub>2</sub>	31.0	72.9	0.468
C <sub>2</sub> H <sub>6</sub>	32.3	48.2	0.203
CH <sub>3</sub> OH <sub>2</sub>	40.0	78.5	0.272
NH <sub>3</sub>	132.3	111.3	0.235
H <sub>2</sub> O	374.2	218.3	0.315

FIG. 5

STATE	GAS	SUPERCRITICAL FLUID		LIQUID
	1atm,25°C	T <sub>c</sub> ,P <sub>c</sub>	T <sub>c</sub> ,4P <sub>c</sub>	1atm,25°C
DENSITY	0.6~2	200~500	400~900	600~1,600
VISCOSITY	1~3	1~3	3~9	20~300
DIFFUSION COEFFICIENT	1,000~4,000	5~40	1~10	0.02~0.2
THERMAL CONDUCTIVITY	4~30	20~80	40~150	80~250

FIG. 6

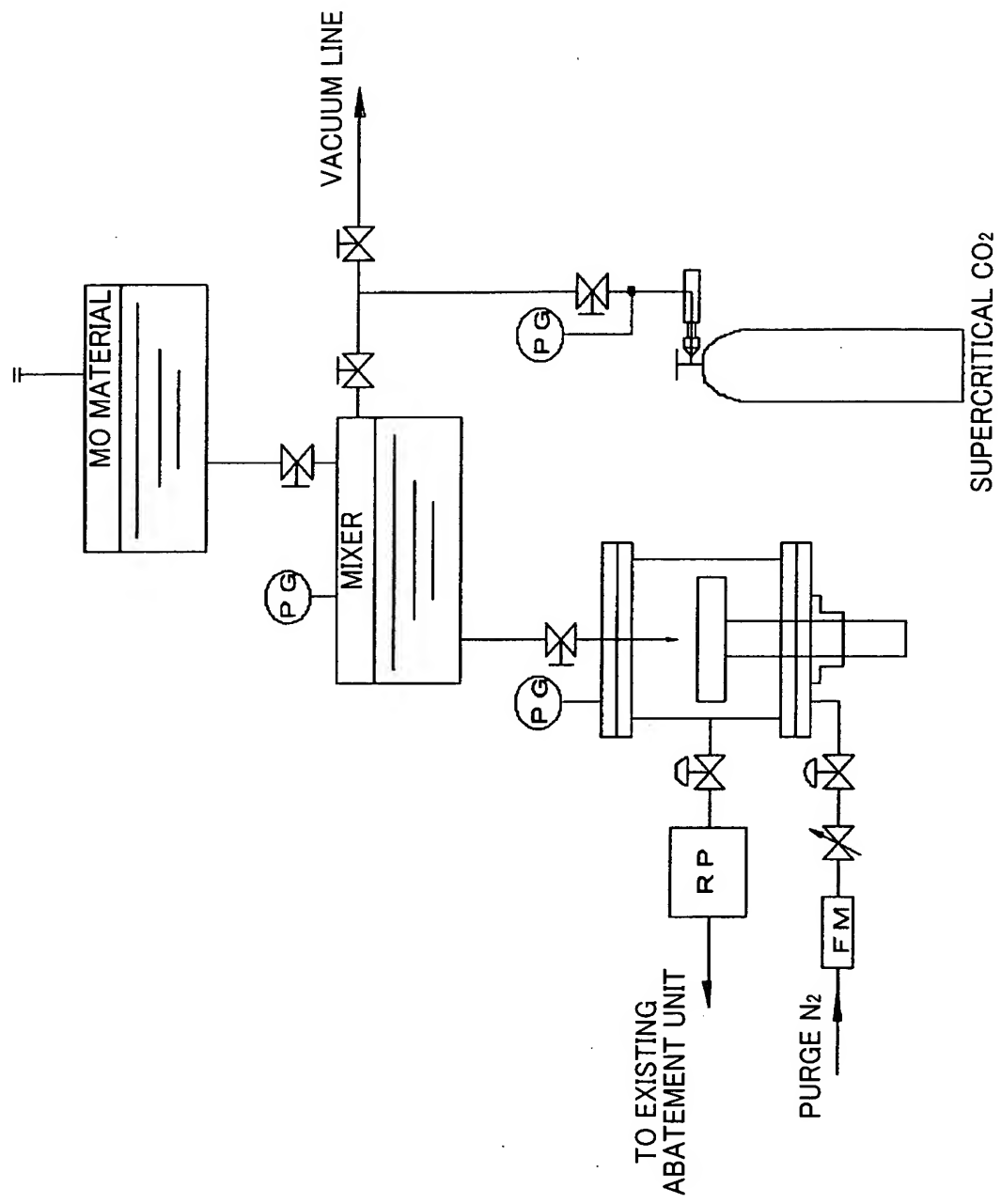
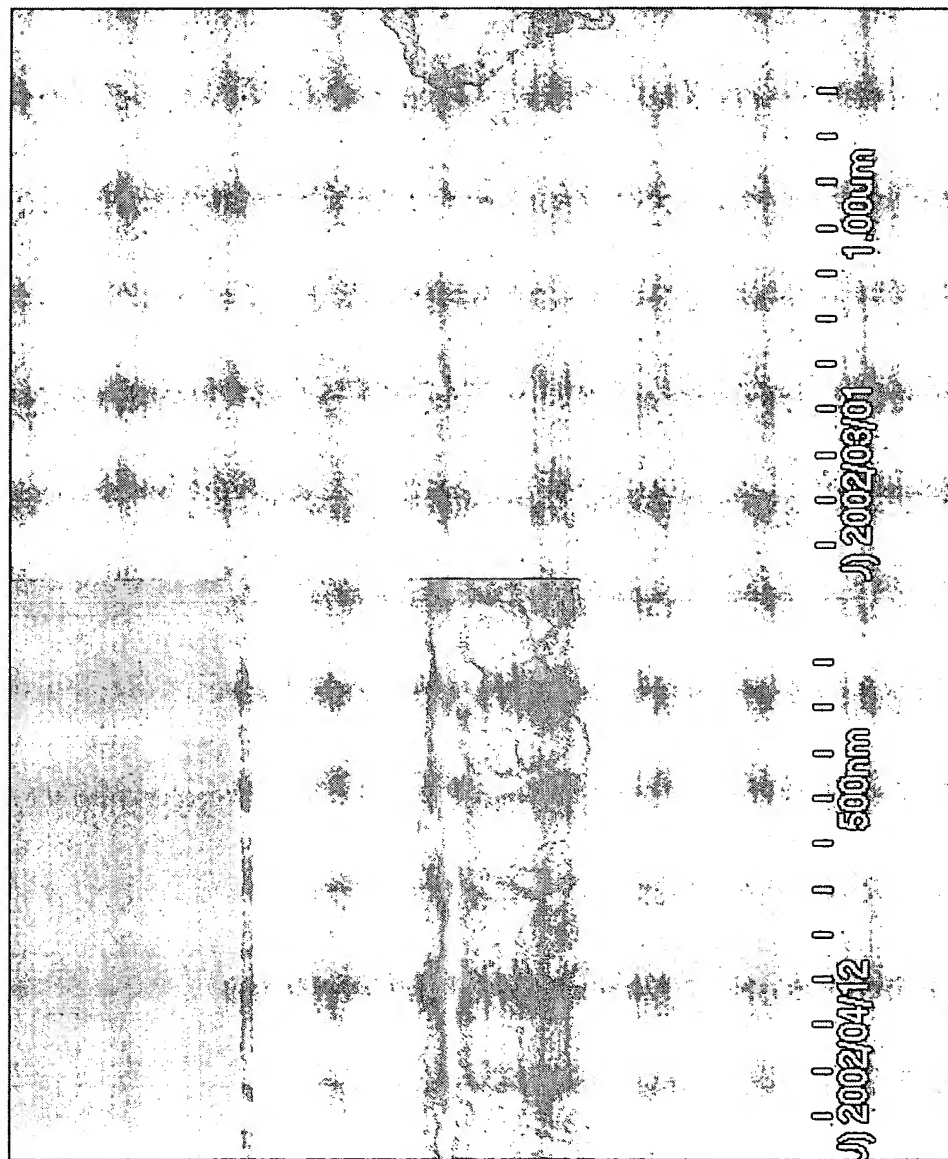


FIG. 7

CROSS SECTION SURFACE



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FIG. 8

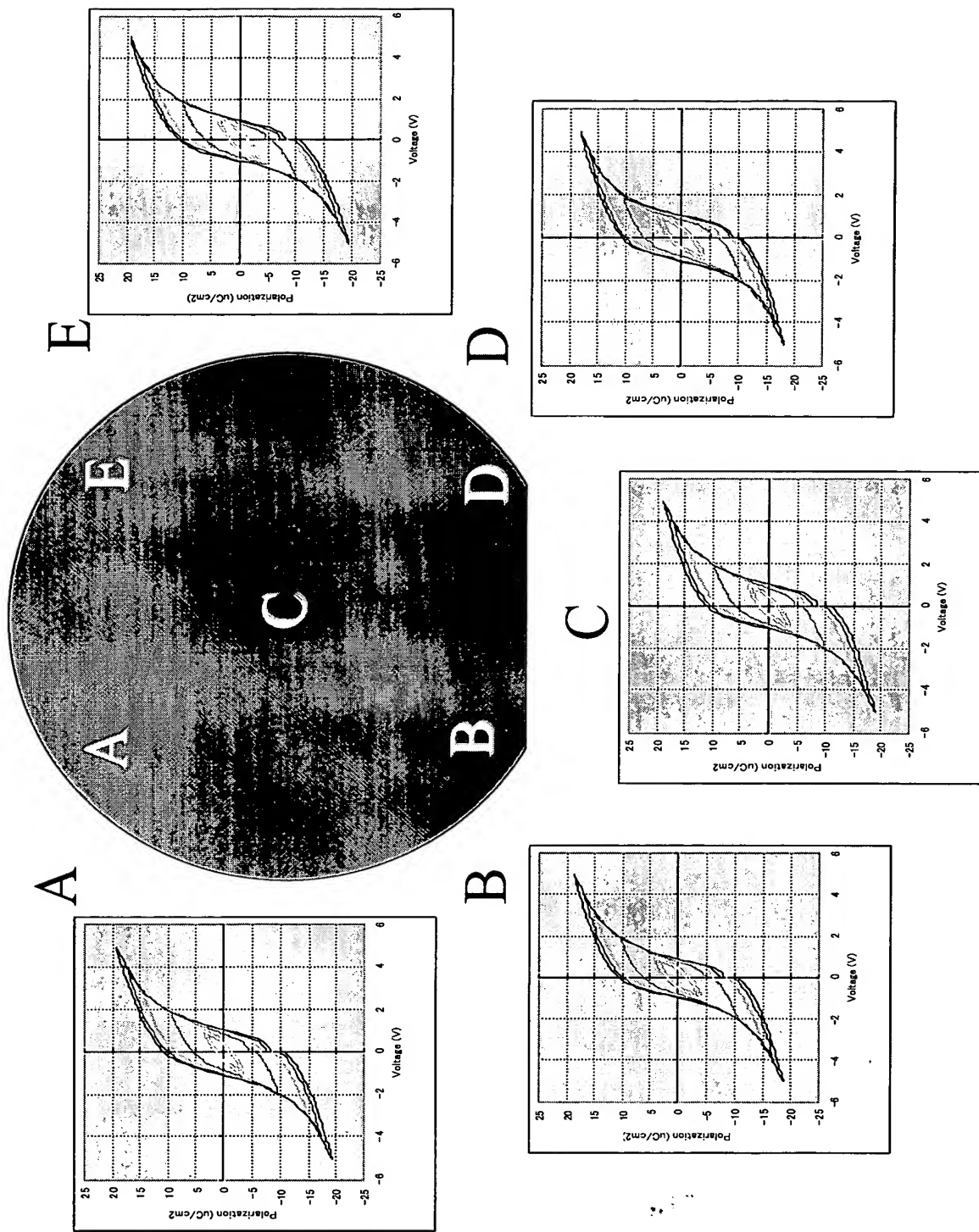




FIG. 9A

200atm

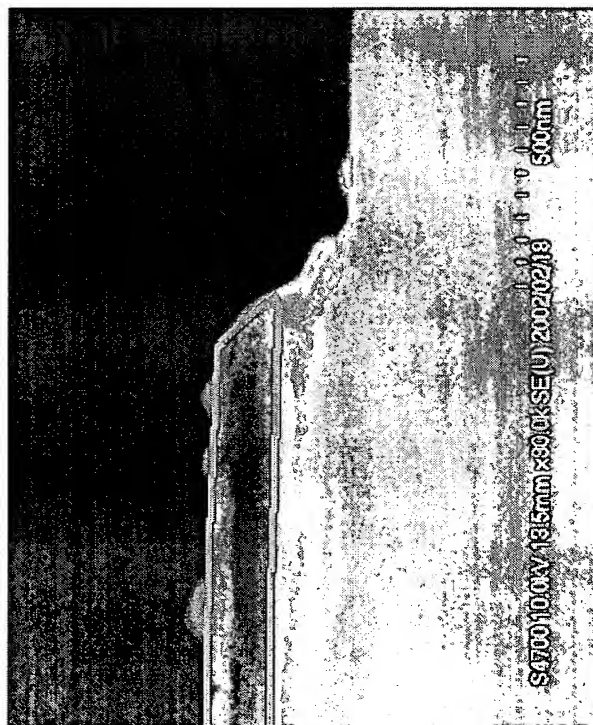


FIG. 9B

75atm

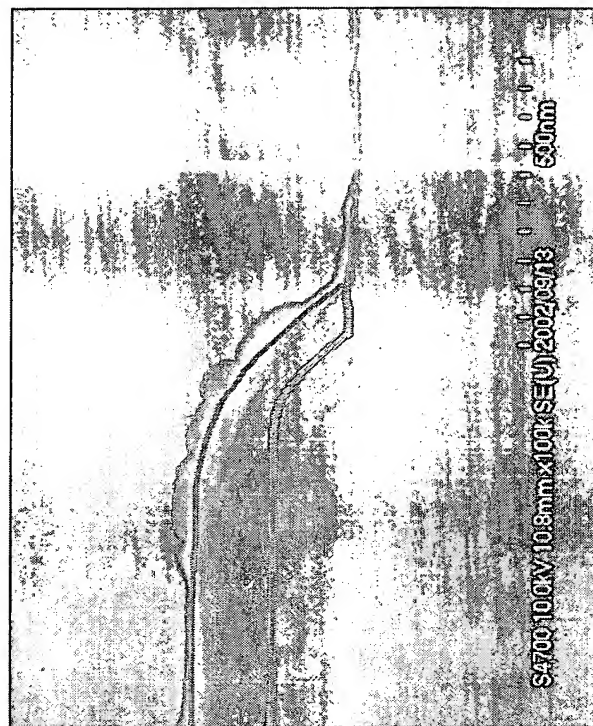


FIG. 10

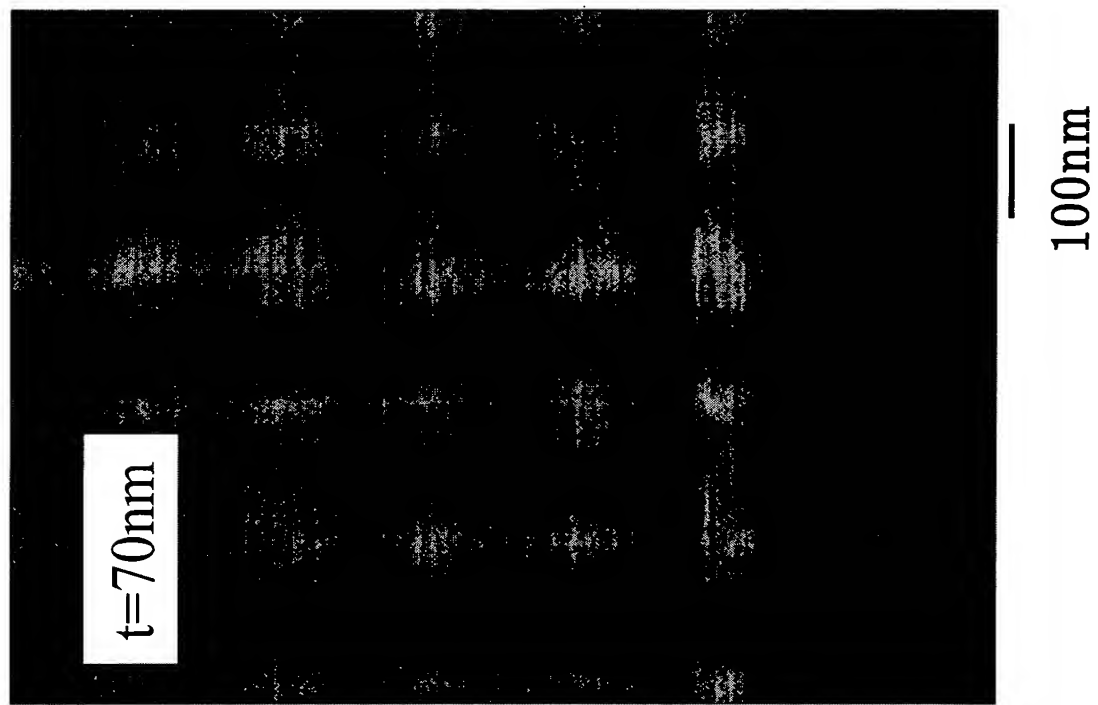


FIG. 11

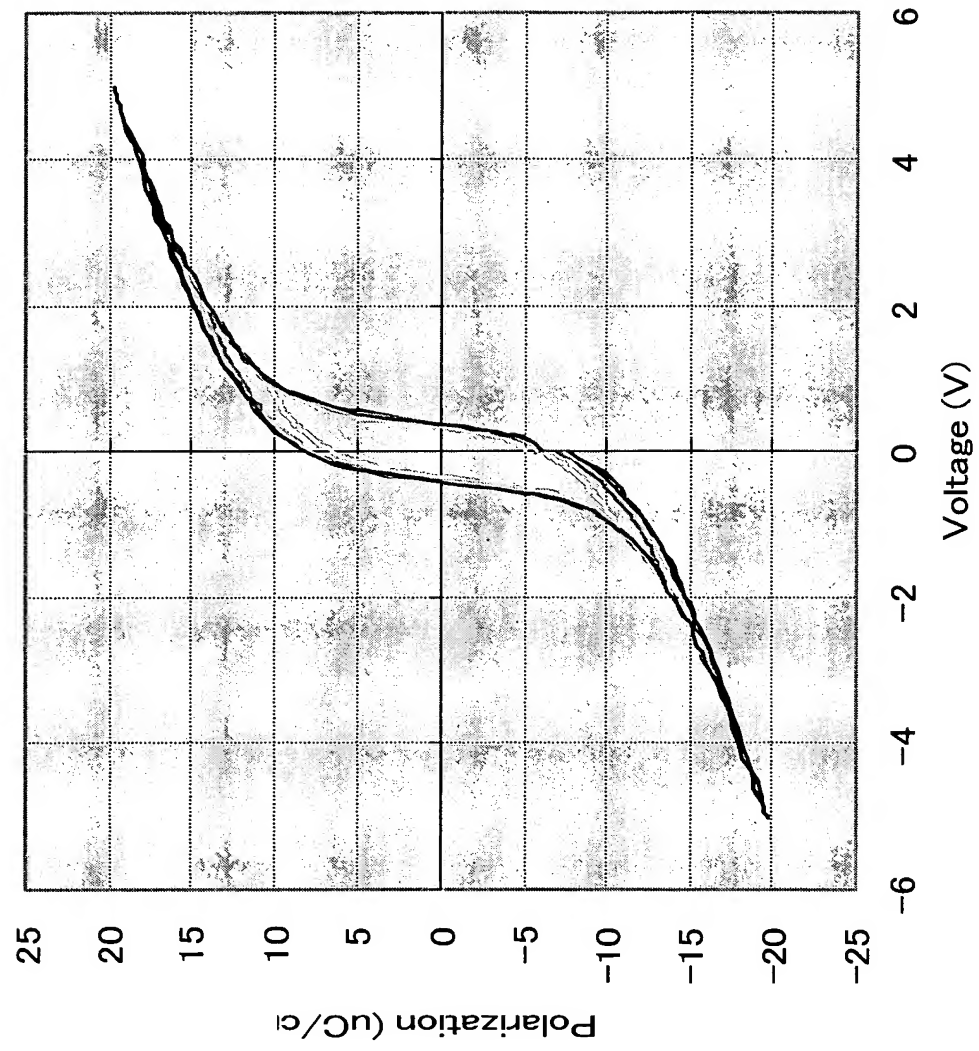
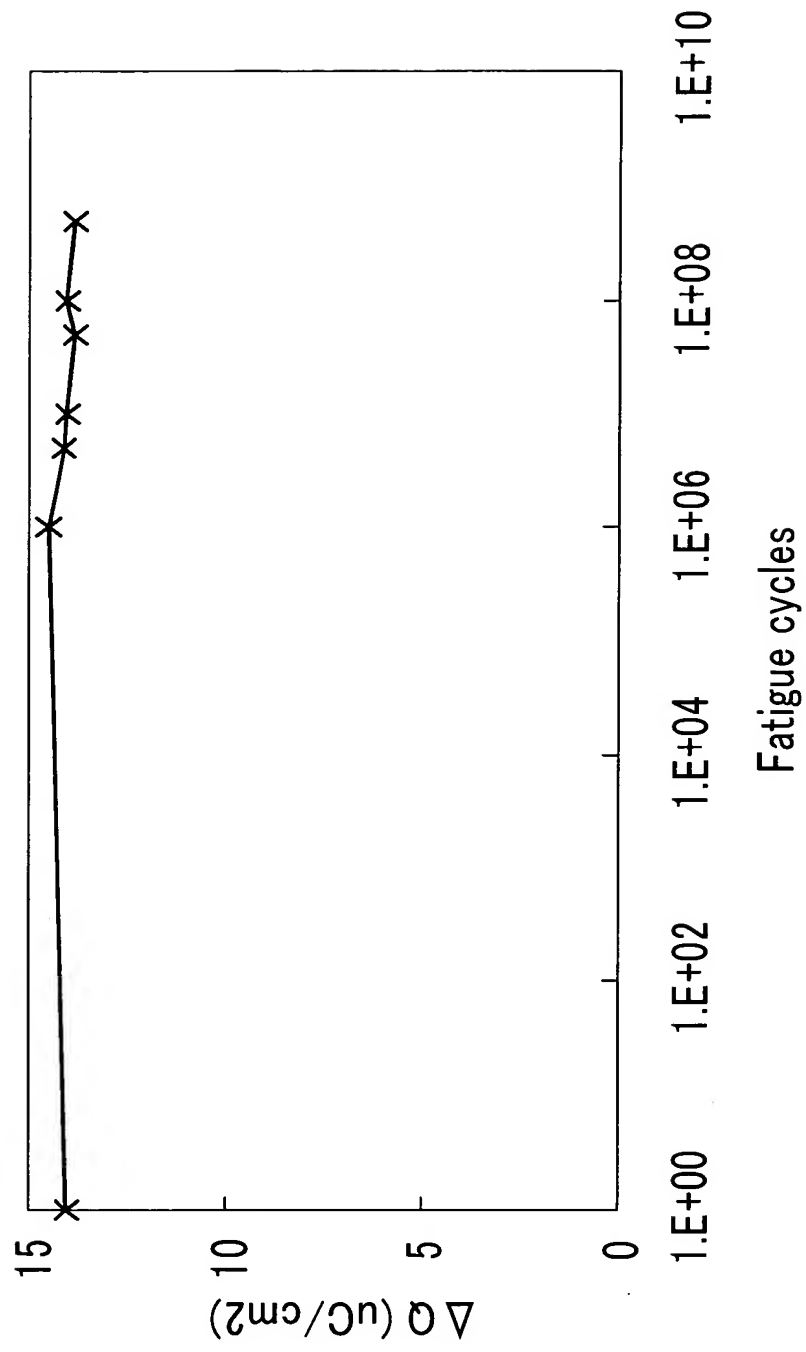


FIG. 12



Test Condition

Triangular, 3V, 66Hz, 10 cycles, Fatigue Pulse = Square, 3V, 50kHz

FIG. 13A

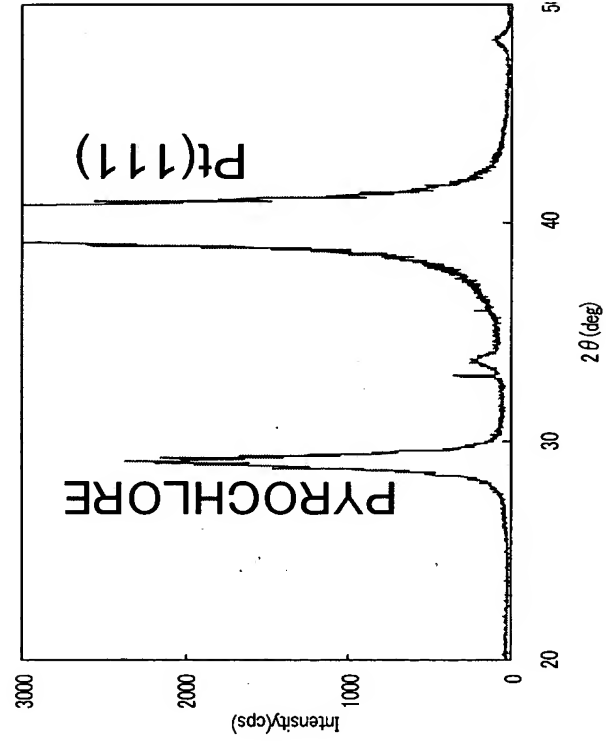


FIG. 13B

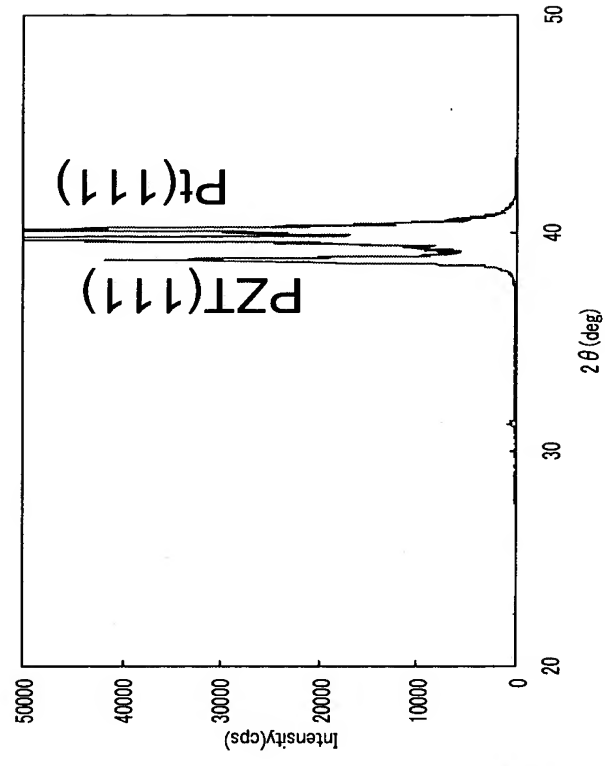


FIG. 14

